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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,115	07/10/2003	Charles R. Weirauch	200311928-1	4096

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EXAMINER	
GOMA, TAWFIK A	
ART UNIT	PAPER NUMBER
2627	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/618,115	WEIRAUCH, CHARLES R.	
	Examiner	Art Unit	
	Tawfik Goma	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 27-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the appeal brief filed on 11/05/2007. Prosecution is reopened in view of the persuasive arguments pertaining to the Kobayashi (US 6278672) and Hayashi et al (US 5684773) references.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-18 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (US 5119363) in view of Kondo (US 6600716)

Regarding claim 1, Satoh discloses an optical storage medium, comprising: a disk-like body (fig. 2); and at least one optically detectable mark on the disk-like body (fig. 5a). Satoh fails to disclose wherein the at least one optically detectable mark being readable by a plurality of different optical systems configured for different types of optical storage media. Satoh discloses wherein the marks can be read by an unfocused light source but fails to disclose marks that are readable by different optical systems (col. 5 lines 61-66 and col. 11 lines 3-16). In the same field of endeavor, Kondo discloses providing marks on a disc which are readable by different optical systems configured for different types of optical storage media (col. 18 lines 24-30). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the marks of Satoh such that they are readable by different

optical systems as in Kondo. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the marks readable by a plurality of different optical systems in order to eliminate a need for providing a separate optical sensor for reading the marks in each reading apparatus.

Regarding claim 2, Satoh discloses wherein the at least one optically detectable mark is located on a buried layer of the optical storage medium (9, fig. 6).

Regarding claim 3, Satoh further discloses wherein the buried layer is a non-data layer of the optical storage medium (fig. 11b). A data recording film is formed on top of the marks of Satoh in the embodiment of figure 11b.

Regarding claim 4, Satoh discloses wherein the buried layer is data layer of the optical storage medium (fig. 4 and col. 6 lines 11-25)).

Regarding claim 5, Satoh discloses wherein the at least one optically detectable mark is located on a surface of the optical storage medium (figs. 5a, 5b). The surface of the disk is indented with the marks.

Regarding claim 6, Satoh discloses wherein the at least one optically detectable mark is located within a non-user-data area of the optical storage medium (9, fig. 4, fig. 2).

Regarding claim 7, Satoh fails to disclose wherein the non-user data area comprises a lead-in area of the optical storage medium. Satoh discloses forming the marks on an inner periphery of the disc but fails to disclose wherein the inner periphery includes a lead-in area. In the same field of endeavor, Kondo discloses a disc with a lead-in area with a mark formed in the lead-in area (col. 13 lines 8-10). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to place the mark in a lead-in area. The rationale is as

follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to provide the mark disclosed by Satoh in view of Kondo above in the lead-in area in order to set the proper mode for playback prior to reading the data area.

Regarding claim 8, Satoh fails to disclose wherein the disc includes a lead-out area. In the same field of endeavor, Kondo discloses providing a disc with a lead-out area which has a mark recorded in the lead-out area (col. 13 lines 8-10). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the medium of Satoh by providing a lead-out area with detectable marks. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to provide a lead-out area with an optically detectable mark in order to provide a guard area for the disk.

Regarding claim 9, Satoh discloses wherein the at least one optically detectable mark is uniform in width along an axis coinciding with a radius of the optical storage medium (W, fig. 4).

Regarding claim 10, Satoh discloses wherein the at least one optically detectable mark is shaped approximately like a sector of an annulus (figs. 5a, 5b).

Regarding claim 11, Satoh discloses wherein the detectable has a trapezoidal shape (fig. 5a).

Regarding claim 12, Satoh discloses a method for determining the type of an optical storage medium (col. 5 lines 61-66 and col. 11 lines 3-16), comprising: reading, from the optical storage medium using an optical system (col. 9 lines 8-10), at least one optically detectable and interpreting the at least one optically detectable mark to identify the type of the optical storage medium (col. 11 lines 3-16). Satoh fails to disclose wherein the at least one optically detectable

mark being readable by a plurality of different optical systems configured for different types of optical storage media. Satoh discloses wherein the marks can be read by an unfocused light source but fails to disclose marks that are readable by different optical systems (col. 5 lines 61-66 and col. 11 lines 3-16). In the same field of endeavor, Kondo discloses providing marks on a disc which are readable by different optical systems configured for different types of optical storage media (col. 18 lines 24-30). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the marks of Satoh such that they are readable by different optical systems as in Kondo. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the marks readable by a plurality of different optical systems in order to eliminate a need for providing a separate optical sensor for reading the marks in each reading apparatus.

Regarding claim 13, Satoh discloses wherein the optical storage medium comprises a circular disc and the at least one optically detectable mark comprises a band of optically detectable marks disposed around a circle concentric with the circumference of the optical storage medium (figs. 5A, 5b and M1-M8 fig. 8).

Regarding claim 14, Satoh discloses wherein the optically detectable marks comprising the band are uniformly spaced (q2, fig. 9a, 9b).

Regarding claim 15, Satoh discloses wherein the optically detectable marks comprising the band are spaced sufficiently far apart to be detectable by an optical system achieving a predetermined largest expected focus spot (col. 1 lines 66 thru col. 2 lines 1-3). Satoh uses the index marks in order to reduce the effect of having to use a tiny light spot for detection.

Regarding claim 16, Satoh discloses wherein interpreting the at least one optically detectable mark to identify the type of the optical storage medium comprises measuring the spacing of the optically detectable marks comprising the band (col. 6 lines 37-56).

Regarding claim 17, Satoh discloses wherein interpreting the at least one optically detectable mark to identify the type of the optical storage medium comprises measuring at least one dimension of the at least one optically detectable mark (col. 6 lines 49-56).

Regarding claim 18, Satoh fails to particularly disclose wherein the type is at least one of CD, DVD, Blu-ray and AOD. In the same field of endeavor, Kondo discloses wherein the marks are formed on a CD and DVD (col. 4 lines 36-48). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the marks on a CD and DVD. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to provide the marks on a CD and DVD in order to have the marks be used with the most common types of optical storage media.

Regarding claims 27 and 29, Satoh discloses an optical device, comprising: an optical system to read (fig. 10), from an optical storage medium (fig. 11a) at least one optically detectable mark (fig. 12), and logic configured to interpret the at least one optically detectable mark (col. 5 lines 61-66 and col. 11 lines 3-16). Satoh fails to disclose wherein the at least one optically detectable mark being readable by a plurality of different optical systems configured for different types of optical storage media. Satoh discloses wherein the marks can be read by an unfocused light source but fails to disclose marks that are readable by different optical systems (col. 5 lines 61-66 and col. 11 lines 3-16). In the same field of endeavor, Kondo discloses providing marks on a disc which are readable by different optical systems configured

for different types of optical storage media (col. 18 lines 24-30). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the marks of Satoh such that they are readable by different optical systems as in Kondo. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the marks readable by a plurality of different optical systems in order to eliminate a need for providing a separate optical sensor for reading the marks in each reading apparatus.

Regarding claim 28, Satoh fails to particularly disclose wherein the optical device is at least one of CD, DVD, Blu-ray, AOD and computer optical drive device. In the same field of endeavor, Kondo discloses wherein the marks are used with a CD and DVD device (col. 4 lines 36-48). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use the marks with a CD and DVD device. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to use the marks with a CD and DVD in order to have the marks be used with the most common types of optical storage media.

Response to Arguments

Applicant's arguments filed 11/05/2007 have been fully considered but they are moot in view of the new grounds of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tawfik Goma whose telephone number is (571) 272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tawfik Goma/
1/21/2008

/William Korzuch/
SPE, Art Unit 2627